GEOGRAPHIC NEWS BULLETIN

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for

DEPARTMENT OF THE INTERIOR

Bureau of Education

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A RUSSIAN PEASANT (Illustration to left)

Conditions have played some curious pranks in the distribution of the immigrant population in the United States (See Bulletin No. 4). More than two-thirds of the citizens of German origin live between the Hudson and the Mississippi and north of the Ohio. The same is true of the Austrians, the Belgians, the Hungarians, the Italians, the Dutch, the Russians and the Welsh.

New York, Pennsylvania, and New Jersey have 47 per cent of the Austrians (See Bulletin No. 1), 34 per cent of the English, 30 per cent of the Germans, 54 per cent of the Hungarians, 45 per cent of the Irish, 58 per cent of the Italians, 56 per cent of the Russians, 34 per cent of the Dutch, and 46 per cent of the Welsh in the United States.

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Vienna: A City of the Dying

A "CITY OF THE DEAD" is gruesome; a city of the dying is more appalling—and the latter phrase describes the Vienna of today. To recall Vienna as it was—gay, musical and dancing—is only to heighten the contrast.

Recollections of the "prettiest sight in Europe," when thousands of children joined the procession in the Prater at Whitsuntide, only emphasize the poignant tragedy of those other thousands, now in hospitals, too weak and sick to cry for food.

The Prater, three times the size of Washington's Rock Creek Park, symbolized the Viennese love of outdoors, which a climate of changeful variety could not quench. There, scarcely out of earshot of each other, the famous military bands played music which later was to be hummed by homegoing American theater audiences. Tame deer were as plentiful as the friendly squirrels of Richmond's Capitol Square.

Seat of Government of a Vanished Empire

Fourth city of Europe before the war, as large as our own Chicago, Vienna seems doomed, not to temporary suffering, like many another European city, but to permanent disability. She was important principally for being the seat of government of an empire of some 50,000,000 people and rich natural resources. Thus she was like Washington, D. C., only her accretion of prestige, culture, and popularity extended from Roman times.

While the population of Austria-Hungary was but half that of the United States, Vienna was the art, music, and tourist center of a population fairly comparable to that of the United States.

Therefore Vienna's position today may be likened to that of Washington, should the American Capital suddenly become the chief city of an area equal only to that of Virginia, with a population little more than that of Pennsylvania. To complete the comparison, one must imagine this Virginia rimmed with new-born and none too friendly nations. That would mean its nine millions of people could not buy foodstuffs, coal, or raw materials from adjoining States. That is Vienna's plight today.

Many Monuments to Former Glory

Vienna abounds in relics of her former glory. Such a reminder is St. Stephen's, the St. Peter's of Austria, which has been a Viennese shrine for seven centuries. The older tower, now replaced by a spire half as high as the Eiffel Tower, was the home of Vienna's early fire department.

By climbing 700 steps the fire watchers reached a platform where there were four telescopes, sweeping every point of the compass. Each quadrant, covered by one telescope, was divided into sections, enabling the observer

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THE PUBLIC SQUARE OF THE VILLAGE OF CAPRI WHICH NESTLES AMONG THE ROCKS NEARLY 500 FEET ABOVE THE SEA

This is the capital and center of life on the island of Capri, imperial residence and probable wireless station of ancient Rome. (See Bulletin No. 2). The village has a population of about 4,000.

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Did Ancient Rome Have a Wireless Station?

"WIRELESS telegraphy is new; wireless communication is as old as biblical times."

With this statement the National Geographic Society quotes from a communication by John A. Kingman, who sets forth the interesting theory that the island of Capri was an imperial wireless station of ancient Rome.

"We know that the ancients signaled in various ways and over long distances," he says. "They signaled by beacon fires, by beacon smoke, by pigeons, by flags, and by shouting from one sentinel to another.

"Lighthouses are as old as the earliest chapters of the Bible. Beacon fires and beacon smoke were commonly used by the early Greeks, and there was no reason why the more practical Roman should not have employed improved methods, such as heliographing.

"We do know that at the siege of Syracuse by Marcellus mirrors were employed by Archimedes; and though we may doubt the burning of vessels from shore by mirrors, as stated of that occasion, we can appreciate the blinding effect of many mirrors on the eyes of the navigators of the attacking vessels. That is what probably happened during that conflict. At any rate, it shows that the great Archimedes, at least, had found some use for mirrors other than the usual one.

Ancient Romans Had Huge Mirrors

"In imperial times the Romans had mirrors large enough to reflect the entire person; they even had mirrors of glass backed with tin instead of quicksilver.

"Signaling was certainly a common military practice among the ancients, and ancient writers, such as Virgil, Aeschylus, and Herodotus, frequently alluded to it.

"An interesting case of long-distance signaling by relaying is mentioned by Herodotus, in which it appears that certain tidings were sent to Xerxes in Asia by means of a line of beacon fires arranged through the Greek islands.

"The ancients went further than simply announcing some prearranged message; they had codes and sent long messages. The Greeks signaled on one occasion 100 miles at one jump. This was from Mt. Chigri, 1,698 feet, to Mt. Athos, 6,500 feet.

Mirror Signals Flashed 160 Miles

"Gallup's Hand Book of Military Signaling states that 'under favorable conditions the distance to which messages may be sent and received is only limited by the curvature of the earth;' also, that 'square mirrors are better than round ones only because they contain about one-quarter more reflecting surface for the same packing case.' Round mirrors are used now. Mirror

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to determine the exact locality of the fire. House owners in each section corresponding to these sectors were listed in great books by the side of each telescope, and as soon as the observer determined which house was ablaze he wrote the name on a slip of paper, threw it down a long pipe, to a janitor below, and by him the fire was reported to the city authorities.

Legend, as well as quaint fact, adheres to many of the landmarks of Vienna. To the south of the city is a beautiful cross, the Spinnerinn am Kreuz. The site was a rendezvous for tourists because of the panorama of the city it afforded. Though the present cross is more than five centuries old, it replaced a simpler crucifix, which is said to have been placed there by a woman whose husband went away on one of the Crusades. While he was abroad she went to this point every day to spin and to pray. When he returned she erected the cross, as a symbol of gratitude, with the money she earned by spinning.

Tried Municipal Ownership on Large Scale

Only a few years before the World War, Vienna embarked upon municipal ownership to an unprecedented scale. Not only did the city own her electric and gas lighting plants, her street railways, and warehouses, but also her breweries, pawnshops, and undertaking establishments.

As befits a city which was a bulwark of the western world against the Turks, Vienna was heavily fortified. The pulling down of these fortifications made room for the extensive park system. With the demolition of the inner ring of forts space was given for the Ring-strasse, or boulevard, which has a two-mile circumference, and is about 150 feet wide. Around this circle, or, more accurately, octagon, run street cars, passing various sections given over to different phases of city life, such as the opera, the business street, the city palace of the former emperor, and so on.

Vienna is not on the Danube, but is connected with the river's course, several miles away, by a canal.

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Shantung's Industries: Hair Nets to Railways

"MY brain simply reels with all this talk about Japan, and China, and the League of Nations," pouts dainty Miss America, as she presses her hands to her head, where her rebellious tresses would be falling down were it not for a net of human hair—from Shantung.

"Came down here to get away from this talk about the peace treaty; China's a long way off anyway," growls Mr. Business Man as he strolls along the beach, in a pongee suit—from Shantung.

With this introduction the National Geographic Society issues a bulletin concerning the industries of Shantung, which range from making hair nets to building railways, quoting from a communication to The Society by Maynard Owen Williams, as follows:

Hair Nets Start An Industrial Boom

"When the speedy roadster made hair nets a necessity, the hunger pressure in a remote province of 30,000,000 relented a little.

"The almost invisible net serves fashion to preserve for another hour the loveliness of a moment. But the making of hair nets enables whole villages of wrinkled old women of Shantung to put a little more food into ever-hungry stomachs.

"When the American male emerged from the woolen of former convention and donned the dapper suit of cool pongee, all the silkworms in Shantung had to work overtime, and their masters added a strip of pork to the family dish. A pongee-clad crowd at Bar Harbor means a better-fed population in Weihaiwei.

"An American woman wears some Chefoo lace, and, thanks to her and the purchases of her friends, almond-eyed girls are being trained in mission schools 8,000 miles away.

"The doughboy back from the war is also a booster for Shantung, though perhaps he doesn't know it. As he tells of the ever-smiling Chinese whom he saw making roads in France, he testifies to the fine qualities of some of the world's best laborers.

Shantung Coolie Helped Win the War

"The Shantung coolie did his fair share of war work. A hundred and fifty thousand of him went out to better living conditions and a wider outlook when the British troopships steamed away from his peninsular home. Hundreds of him dropped shovel and seized gun or fought with clubs and axes when the breach at Chateau-Thierry yawned.

"Now some of those Shantung coolies are being returned to their homes with new thoughts and ideals, speaking pidgin French, pidgin English, and what-not, but with wonderful tales to tell of the men by whose sides they fought.

"When China wants railways built or canals dug, here are the boys who showed the best Allied engineers what loyal labor really was.

signals have been seen with the unassisted eye at distances of 160 miles. While this is, perhaps, a record, and although there is no statement as to the size of the mirror, it probably did not exceed twelve inches square.

"The reasonableness of the Capri 'wireless' station theory tempts one to speculate as to how much signaling was done and how it was done. It will be remembered that Tiberius, the unpopular successor of Augustus, spent eleven years of his reign on Capri, and without coming to Rome directed most successfully the affairs of the vast empire. He even foiled the conspiracy of his trusted minister, Sejanus, who was supposed to have general charge of affairs after Tiberius retired to the island.

Daily News Bulletins Furnished Emperor

"Though Tiberius went to Capri an old man, he was the actual ruler—emperor, in fact—and his heavy hand was felt all over the empire until the very end. With regular news bulletins and reports, received daily if need be, containing confidential information, he would be able to issue instructions and manage affairs as thoroughly as if he were in Rome.

"Possibly the *Publica acta* (Senate Journal) and the *Diurna acta* (authorized news) were sent to Capri by signal instead of by messenger. We can conceive that such a system, organized most likely under Augustus, must have operated very smoothly after some years of experience and practice. I hazard the theory of mirrors because of its simplicity and convincing character. Signaling by beacon seems too primitive for the wonderful civilization of the empire. Of course, at night-time beacon fires would have to be employed; mirror signaling was a fair-weather method.

A Possible Method of Wireless Communication

"The distance in an air line between Rome and Capri is 130 miles—too long for direct signaling; but if we look along the coast of the Tyrrhenian Sea we find numerous mountains affording points where the signals could be relayed. The frequency of the relaying would depend on the conditions. The highest point on Capri is Monte Solaro, 1,980 feet. Signals were probably not sent from here, but from the eastern headland. The Pharos was about 1,000 feet above sea level. A line drawn from the Pharos to Monte Circeo, on the Campanian coast, just grazes the island of Ischia; but the line of sight would be well above the island, as the summit of Circeo is 1,775 feet.

"A suggested line of stations with no range more than 44 miles long is submitted to those of a speculative turn of mind. Rome to Monte Cavo, in the Alban Mountains, 18 miles; thence to Monte Circeo, 39 miles; thence to Monte Massico, 44 miles; thence to Capri, 44 miles. A Pompeian fresco of quite recent discovery shows Monte Cavo as being very conspicuous when viewed from the Palatine Hill. The clear summit is boldly visible. Perhaps the Palatine Hill was the 'sending' station in Rome."

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Where Americans Come From

HIGH hope for the government's Americanization program is held out by a study of the remarkable way the United States has absorbed the amazingly large foreign element of its population.

In describing the volume of this influx, not generally realized, which was halted by the European war, a communication to the National Geographic Society, says:

"Who can estimate our debt to immigration? Thirty-three million people have made the long voyage from alien shores to our own since it was proclaimed that all men are born free and equal, and liberty's eternal fire was kindled first on American soil. It is as if half the former German Empire should embark for America, or all of pre-war England except the county of Kent. It is as if all the population of all of the States of the United States west of the Mississippi, plus that of Alabama, should have come bodily to America.

Greatest Migration in History

"History records no similar movement of population which in rapidity or volume can equal this. Compared to it, the hordes that invaded Europe from Asia, great and enormous as they were, were insignificant.

"Of the 33,000,000 who have come more than 14,000,000 still live among us, and their children and children's children are now in good truth bone of our bone and blood of our blood.

"Not long ago America crossed the hundred-million line in the number of its citizens, and it is interesting to note the composition of that population.

"To begin with, there are 11,000,000 colored people, including negroes, Indians, Chinese, etc. Then there are 14,500,000 people of foreign birth among us. In addition to these, there are 14,000,000 children of foreign-born fathers and mothers and 6,500,000 children of foreign-born fathers and native mothers, or vice versa. When all of these have been deducted from the 100,000,000 only 54,000,000 remain of full white native ancestry.

"Yet the 35,000,000 American people who are of foreign stock—that is, foreign-born or the children of a foreign-born parent—include some of the most illustrious citizens of our Republic. Even the President of the United States himself has only one ancestor who was born in America, and the list is long and notable of statesmen, captains of industry, leaders of finance, investors, makers of literature and progress, who have strains of blood not more than one generation on this side of the sea.

Great Britain Leads in Citizen Contributions

"An examination of the statistics of American immigration shows that since the foundation of our government the United Kingdom of Great Britain and Ireland has contributed 8,400,000 of her people and Germany more than

"Nor will they have to wait long. An American corporation is only waiting for better transportation facilities before beginning to dredge once more the Grand Canal, which was binding China into an empire two centuries before the Great Wall began to shut out the rest of the world and 400 years before the birth in a Bethlehem manger of Him who was to affect China in a degree second only to Shantung's great Sage.

Work or Migrate are Only Choices

"When 30,000,000 people whose idea of a day's work is 16 hours are crowded into a province the size of Iowa, there must either be industrial development in silk, lace, and hair or periodic migrations of labor to less quickly settled parts of the world.

"In summer the Shantung coolie is north along the Amur mining gold or harvesting soy beans in Manchuria. I have seen him carrying Harbin flour aboard the Sungari steamers, and he laid hundreds of miles of ties on the Trans-Siberian. I have seen him juggling gaily-painted sticks at the Nijni Novgorod fair, and companies of Shantung coolies fought for the Bolsheviks beside the Kremlin and against them near Tchita. In ruined Van a Shantung coolie, heavily dressed against the bitter cold of the Armenian plateau, rolled into town ahead of twenty of his compatriots who brought flour to that starving city.

"Soon the Japanese will be laying the rails for their new railway concession from Kaomi, near Tsing-tau, to Hauchowfu, whence a Trans-Atlantic trunk line, which will be to the Trans-Siberian what the Union Pacific is to the Canadian Pacific, is some day to link Lanchow and Kashgar with Peking and Russian Turkestan. Another Japanese line will run from Tsinan to cut the Peking-Canton line at Shuntehfu.

"In building these railways the Shantung coolie will have his rightful place, and skill gained in France will stand him in good stead in linking his home province to the capitals of Eurasia from Madrid to Tsinan."

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Brazil: The Giant of Pan-America

EUROPE is exhausted by the war; Asia is rent by post-war contentions. Africa's colonial possessions are undergoing the process of redistribution. Mexico, on our own continent, is in a turmoil; while the United States and Canada have some problems, though far less acute than those of Europe, arising from the ordeal from which both have emerged.

But not quite all the world is askew. There is South America. We are apt to overlook the fact that most nations on the continent to the south of us are "doing business as usual." Rightly proud are Americans of the position of the United States in the western hemisphere, yet we should not overlook the prowess and progress of some of our remarkable neighbor nations.

For example—take Brazil.

Brazil Touches Every South American Country But One

Giant-like, but far from sleeping, our equatorial sister-republic is as large as the entire United States, except for Alaska. It borders on every South American country save Chile; it has the longest river in the world. It has the oldest post-Columbian civilization and is among the newest republics of the western world. Were it as densely peopled as Massachusetts its population, now about one-fourth that of the United States, would equal that of all Asia, Europe, Africa and America together.

Revise your notions of jungles and aborigines and primeval fastnesses if you would get a correct picture of Brazil. Those things are to be found in Brazil as are Indians, prairies and forests in the United States; but they are only the national parks, partly unexplored as yet, of a nation which ships its rubber, its diamonds, its manganese, and its hides to all quarters of the civilized world; does its shopping in Europe and in the United States; and has for its capital that 'jewel of the Atlantic,' Rio, in a natural setting of rarest beauty, rich, prosperous, and beautiful with its boulevards, its stately homes, and its skyscrapers, less lofty but vastly more decorative than many of the northern sort.

Its people are hospitable and generous, apt in the ways of trade, but persisting in a wholesome love of play, mixing friendship and business, courtesy and commerce, sometimes to the discomfiture of the 'whirlwind' type of salesman. But they are convinced of the wisdom of their attitude which, as summed up by one of them is, in effect, that the American may choose the shortest road to a given end, if he will, but the Latin-American prefers to seek the prettiest.

A Racial Experiment Now in Progress

If America is a melting pot Brazil literally is a mixing pot. There a new racial experiment is in process which would delight a Darwin could he live for enough centuries to observe it—the experiment of literally mixing ancient Portuguese and pre-Columbian Indian stock with that of other European and

six million. Ireland, with more than four million; Great Britain, with a little less than four million, and Scandinavia, with something less than two million, have together with Germany, contributed more than half of the total immigration to our shores since the beginning of the Revolutionary War.

"When we take the German immigration of the United States between 1776 and 1890 and compare it with that from other countries, a somewhat startling result, and one usually unsuspected, is disclosed. The total arrivals of aliens in those 114 years aggregated 15,698,000, of whom more than 6,000,000 were British and Irish and 5,125,000 were Germans, which shows that one alien out of every three arriving in America during more than a century of our existence was a German. Only the United Kingdom shows a greater proportion.

"Since 1890 the trend has been very different. With more than 17,000,000 immigrant arrivals since that date, only 1,023,000 have been Germans. If from this number a proper deduction is made for those who returned to their homeland and those who have died since their arrival, it will be seen that there are fewer than a million former subjects of the Kaiser in this country who have not been here more than twenty-six years. Of more than 8,000,000 people of German birth and immediate ancestry among us, less than 1,000,000 fail to have the background of birth or long residence in America behind them.

More Irish Came Than Remained at Home

"It is interesting to note the other foreign elements that have entered into the make-up of American population since 1776. What a wealth of blood that wonderful little island, Ireland, has given us! More Irish people have crossed the seas to become part of us than have remained behind. It is remarkable that so small an island—smaller, indeed, than the State of Maine—could in a century and a half send us enough people to duplicate the present population of eleven of our States having an aggregate are as large as the United Kingdom, France, Germany, and Austria-Hungary together.

"Austria-Hungary stands next on the list of contributors to the immigrant stream that has flowed from Europe to America. Although Austro-Hungarians began to immigrate in considerable numbers only when the arrivals from western Europe had begun to fall off, sufficient have come from the former dual monarchy to populate the State of Texas to its present density. Italy has sent us enough of her people to duplicate the population of Montana, Wyoming, Idaho, Oregon, Nevada, Utah, Colorado, Arizona, and New Mexico, while England's and Scotland's contributions, 3,889,000 in all, together with Ireland's 4,500,000 gives a total of 8,389,000, or plenty to populate all of the States lying west of Texas and the Dakotas. The Russians who have come to our shores number 3,419,000. They could replace one-half of the population of New England."

Bulletin No. 4, March 22, 1920.

North American peoples. Thus Brazil has outdone our political democracy in a social democracy which risks the acid test of inter-marriage.

Those who do their arm-chair travelling with only the fiction romancers for guides, and so conclude that Latin-America is an area of revolution and transplanted aristocracy, should read the history of that comparatively peaceful, steady, evolution of the Brazilian republic, undisturbed by revolts or important civil wars. Brazil's constitution is modelled after ours. Sometimes whole passages will be found word for word, and her plan of government is strikingly similar, even to such details as provision for a capital which some day is to be built for the purpose, as Washington was, but in the central inland district, as Washington was not. Divergencies due to national temperament exist. There are no political parties in Brazil, as we know them. The Latin-American prefers personal leadership to abstract platforms. Thus opens a fascinating field for the student who would observe what fruit two racial branches will bear after being grafted on the same constitutional tree.

Booms, Like Snow Balls, Roll Up Prosperity

Industrially Brazil has been a boom country, as growing countries are apt to be, and each boom—coffee, diamonds, rubber, dye woods, cotton and gold—added force to the huge industrial snow ball which is "rolling down to Rio" from a hinterland of unknown wealth and resources almost as limitless and diverse as those of the United States.

Note too, on your map, that in all this vast land there are no deserts, like those of Africa; that the mighty Amazon has some 200 tributaries of which half now are navigable; and that the Amazon is but one among the roster of Brazilian rivers, such as the Negro, Madeira, the Parana and the San Francisco.

Photograph by C. K. Edmunds in National Geogarphic Magazine,
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THE NECK-STOCK OR CANGUE WAS FORMERLY THE INSTRUMENT USED IN SHANTUNG FOR PUNISHMENT FOR MINOR MISDEMEANORS. (SEE BULLETIN NO. 3.)